

of a great deal of the pressure and movement connected with abdominal respiration, which is usually in abeyance. The physiological stimulation of the duodenal papillæ by the passage of food, owing to the exclusively fluid nature of the supplies, is reduced to a minimum, and reflex contraction of the gall-bladder ceases to be favored, and the bile, an antiseptic which surely reaches undecomposed the seat of the ulceration, is diminished. Anæmia, due to restricted alimentation, the original infection, and prolonged absorption of septic material from the bowel, is a prominent symptom. The local indications must be met by remedies introduced *per vias naturales*, and in order to insure the efficacy of any antiseptic introduced by the mouth, its administration must be continuous, since it cannot be given in concentrated doses. And since the remedy must expend its chief action on the stomach and on the whole intestine above the seat of the disease, and be partly absorbed by them, it is of the utmost importance that it should be incapable of doing any harm. The symptomatic indications cover the clearance of the bowel of offending matter and the restoration of the mucous membrane to as healthy condition as is possible, so that food may be absorbed. The first end may be reached by the administration of castor oil or calomel in a first purgative dose, and followed up with quarter or third of a grain doses repeated three or four times daily, either combined with small doses of opium or supplemented with more active aperients. The second indication is met by a strict fever-diet during the first few days of anorexia. As soon as the appetite and tongue improve, the patient may be prepared for his period of starvation by varied and nutritive, though light, supplies which leave but little insoluble residue. Of the various drug treatments, the use of mercury and iron is recommended. The advantage of the former as an aperient lies in its antiseptic properties. Twenty-minim doses of the tincture of ferric chloride and thirty minims of the solution of mercuric chloride are administered every four hours through the course of the disease. It is claimed that by this method the diarrhœa is controlled, the complexion and faculties are brighter, there is improvement in every direction, and speedy convalescence. There is a general tonic effect on the nervous system, beneficial effect on the blood, liver, and mucous membranes, and the above-mentioned control of the diarrhœa may be due to either local antiseptics or the astringent properties of the iron.—*Medical Press and Circular*, 1895, No. 2923, p. 505.

THE GLYCERO-PHOSPHATES.

DR. ALBERT ROBIN has completed a six years' study of these remedies, which have an elective action upon the nervous system, reawakening the failing nervous energy and stimulating it to activity. In comparing the effects produced by the injections of testicular fluids in which phosphorus in organic combination is one of the essential principles, we have simply an uncertain, variable, markedly changeable preparation replaced by a well-defined product of which the dose can be easily regulated. Subcutaneous injections of sodium glycono-phosphate increased the quantity of urine five times in eight; in general, the specific gravity lowers as the quantity increases; the solids increased five times in seven; and this increase indicates an acceleration of total nutrition. Both organic and inorganic changes are increased, the latter in a manner perhaps more constant. The nitrogenous

metabolism increases; there is a better utilization of the disintegrated products, and a tendency toward a diminution of uric acid. In the majority of cases the total sulphuric acid increases as well as the coefficient of sulphur oxidation, so that the metabolism of organs rich in sulphur, as the liver, for example, and the evolution of sulphurous products become more complete. Sodium chloride increased six times in seven, corresponding to the clinical fact, an increase of appetite. These drugs do not tend toward the denutrition of organs rich in phosphorus, but, on the contrary, they act upon them as a means of preventing waste. And, further, they probably favor the assimilation of a small quantity of the alimentary phosphates. In a study of their effects upon lime-salts it was shown that there was an acceleration of the nutrition of bones, without, however, influencing in a corresponding manner the phosphorus-metabolism in the same tissues. They do not have a marked effect upon intestinal fermentations. Taken as a whole, these observations show the great value of the glycerophosphates in checking the denutrition of the nervous system and in aiding its restoration to normal conditions. The indications for the use of these drugs do not fall under the title of any one disease, nor is any one disease a contraindication. They are useful when (1) there is a failure in nitrogenous metabolism, as, for instance, in chlorosis, chronic gout, diabetes, obesity, chronic pulmonary phthisis, chronic Bright's disease, phosphatic albuminuria, dyspepsias with gastric insufficiency and diminished hydrochloric acid, and debilitated old persons. (2) Cases of hepatic insufficiency, brick-dust sediment in the urine, urates tinged with uroerythrin. (3) Malnutrition of the nervous system, whether due to an exaggerated denutrition or insufficient assimilation. As examples: convalescence from acute diseases, especially from epidemic influenza, the various phosphaturias, a large number of neurasthenias when they follow phosphaturia, phosphoruria, dyspepsias from gastric insufficiency, intellectual fatigue with nervous *surmenage*, muscular atrophy, paralyzes in general, pains of ataxia, tic douloureux of the face, sciatica, and chronic lumbago. No effect has been noted in mental diseases nor in progressive general paralysis. One case of Addison's disease improved. (4) In bone-diseases, as rhachitis, osteomalacia, fractures, and diseases of growth, the lime and magnesium glycerophosphates should be employed. In short, the glycerophosphates should be considered as remedies for nervous depression. For subcutaneous injection the salts of lime, sodium, and magnesium alone have been used in solution in the percentage of 5 for lime and 20 for sodium; the amount injected representing from one to eight grains of the lime salt and from three to twenty grains of the sodium salt. Strict antiseptic precautions must be observed, as these solutions are excellent culture-media for many microbes. When given by the mouth the salts of lime, sodium, potassium, and magnesium can be given in daily dosage of from five to fifteen grains, preferably during the meal. The iron salt is administered in from one-and-a-half to five grains per day.—*Bulletin Général de Thérapeutique*, 1895, 18e liv., p. 385; 20e liv., p. 433.

LAVAGE OF THE STOMACH.

DR. FAUCHER insists that the tube which bears his name should be of the flexibility and size which he designated in his first communication made in